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LIST OF INSECTS TAKEN IN ALPINE REGION OF MT. WASHINGTON.

By ANNIE TRUMBULL SLOSSON.

In 1874, Mr. E. P. Austin (Proc. Bost. Soc. Nat. Hist. vol. xvi. p. 265) published his "Catalogue of the Coleoptera of Mt. Washington, N. H., with descriptions of new species by J. L. LeConte, M.D."

In 1877, Mr. F. Gardiner, Jr., published in "Psyche" (vol. ii, p. 211) a list of additional species taken by himself and Mr. W. Schaus, Jr., in July, 1877. In neither of these catalogues do the authors limit themselves strictly to insects collected in the alpine region proper, though in the latter list nearly all were taken there.

Mr. Austin's camp was situated "a short distance below the Half-way House," about 3900 feet altitude, and nearly all of his collecting was done near that place. He includes, also, he says, Coleoptera taken by Mr. S. H. Scudder "near the foot of the mountain," others gathered by Mr. Samuel Henshaw, locality not given, and some from a list of general White Mountain species by Mr. G. D. Smith, as far as I can discover comparatively few of the insects named in this catalogue were taken on the summit

or above what is called the alpine line, 4000 feet above sea-level.

In the list of Messrs. Gardiner and Schaus the localities are carefully designated. Out of its 114 species not contained in Austin's list, all but a half dozen or so seem to have been taken above the alpine limit. I know of no lists in orders other than Coleoptera ever published.

In July and August, of 1893, as mentioned in a previous paper (ENT. NEWS, vol. iii, p. 249), I spent several days on Mt. Washington and collected many species. I herewith append a complete list of such, and add also a few taken in previous visits. These last are marked with an asterisk. Every insect here mentioned was taken at or above 5500 feet altitude, and much the greater part of them on the summit, or cone itself, about 6300 feet. Among the Coleoptera there are fifty species not included in either Austin's or Gardiner's lists, and in other orders there are at least five entirely new species, and probably more. Let me again repeat here my grateful acknowledgement of assistance rendered me in the identification of insects by Messrs. Liebeck, Fox, Davis, Van Duzee, Calvert and others, without whose aid I could not have prepared this list.

COLEOPTERA.

Cicindelidæ.

Cicindela longilabris? *Say.*

Carabidæ.

Carabus chamissonis *Fisch.*
* Calosoma frigidum *Kirby.*
Elaphrus fuliginosus *Say.*
Nebria suturalis *Lec.*
" sahlbergi *Fisch.*
Bembidium pictum *Lec.*
Patrobus rugicollis *Rand.*
Trechus chalybeus *Mann.*
Pterostichus adoxus *Say.*
" coracinus *Newm.*
* " lucublandus *Say.*
" vitreus *Dej.*
" mandibularis *Kirby.*
" vindicatus *Mann.*
" hudsonicus *Lec.*
Amara arenaria *Lec.*
" similis *Kirby.*
Amara hyperborea *Dej.*
" latior *Kirby.*
* Platynus cupripennis *Say.*
Agonoderus pallipes *Fab.*
Harpalus pleuriticus *Kirby.*
Stenolophus conjunctus *Say.*

Dytiscidæ.

Laccophilus maculosus *Germ.*
Bidessus affinis *Say.*
Hydroporus sp.?
Agabus confinis?
Rhantus binotatus *Harr.*

Hydrophilidæ.

Helophorus linearis *Lec.?*
Hydrophilus mixtus *Lec.*
Berosus striatus *Say.*
Cymbiodyta fimbriatus *Melsh.*
Creniphilus subcupreus *Say.*

Silphidæ.

Silpha surinamensis *Fab.*

Staphylinidæ.

Quedius sp.?
Philonthus palliatus *Grav.?*
" debilis *Grav.*
Xantholinus hamatus *Say.*
Stenus sp.?
Acidota crenata *Fab.*

Coccinellidæ.

Coccinella trifasciata *Linn.*
" transverso-guttata *Fab.*
Harmonia similis *Rand,*
" picta *Rand.*
" 12-maculata *Geb*
Psyllobora 20-maculata *Say.*
Brachyacantha ursina *Fab.*

Byrrhidæ.

Simplocaria metallica *Sturm.*
Cytilus trivittatus *Melsh.*
Byrrhus cyclophorus *Kirby?*
" geminatus *Lec.*

Elateridæ.

Cryptohypnus sanborni *Horn.*
" abbreviatus *Say.*
" restrictus *Mann.*
Elater socer *Lec.*
" semicinctus *Rand.*
" nigricans *Germ.?*
" rubricus *Say.*
" apicatus *Say.*
Agriotes limosus *Lec.*
Limonius sp.?
Campylus denticornis *Kirby.*
Paranomus costalis *Payk.*
" pictus *Cand.*
Corymbites virens *Schr.*
" resplendens *Esch.*
" spinosus *Lec.*
" medianus *Germ.*
" triundulatus *Rand.*
" propola *Lec.*
" hieroglyphicus *Say.*
" cruciatus *Linn.*
* Asaphes decoloratus *Say.*

Buprestidæ.

* Buprestis maculiventris *Say.*
Melanophila longipes *Say.*
" drummondi *Kirby.*
" fulvoguttata *Harr.*
Chrysobothris trinervia *Kirby.*
* " scabripennis *L.&G.*

Lampyridæ.

Cænia dimidiata *Fab.*
Eros aurora *Hbst.*
Lucidota atra *Fab.*
Ellychnia corrusca *Linn.*
Pyropyga decipiens *Harr.*
Podabrus diadema *Fab.*
Telephorus carolinus *Fab.*
" rotundicollis *Say.*

Cleridæ.

Thanasimus undulatus *Say.*

Ptinidæ.

Ptilinus ruficornis *Say.*

Scarabæidæ.

* Aphodius fimetarius *Linn.*
" granarius *Linn.*
" prodromus *Brahm.*
Allorhina nitida *Linn.*
* Euphoria fulgida *Fab.*

Cerambycidæ.

Asemum mœstum *Hald.*
Tetropium cinnamopterum *Kirby.*
Rhagium lineatum *Oliv.*
* Rhopalopus sanguinicollis *Horn.*
Pachyta monticola *Rand.*
Anthophilax attenuatus *Hald.*
Acmæops bivittata *Say.*
" proteus *Kirby.*
Leptura 6 maculata *Linn.*
" canadensis *Fab.*
" proxima *Say.*
" pubera *Say.*
" ruficollis *Say.*
" mutabilis *Newm.*
* Monohammus scutellatus *Say.*

Pogonocherus penicellatus *Lec.*

Chrysomelidæ.

* Donacia emarginata *Kirby.*
Orsodachna childreni *Kirby.*
" tibialis *Kirby.*
Adoxus vitis *Linn.*
Doryphora 10-lineata *Say.*
Chrysomela elegans *Oliv.*
Gonioctena pallida *Linn.*
* Luperus varipes *Lec.*
* " cyanellus *Lec.*
" meraca *Say.*
* Trirhabda canadensis *Kirby.*
Galerucella cavicollis *Lec.*
" decora *Say.*

Tenebrionidæ.

* Iphthimus opacus *Lec.*
* Upis ceramboides *Linn.*

Cistellidæ.

Isomira 4-striata *Coup.*

Melandryidæ.

Scotodes americanus *Horn.*

Pythidæ.

Crymodes discicollis *Lec.*

Cephaloidæ.

Cephaloon lepturides *Newm.*

Anthicidæ.

* Corphyra lugubris *Say.*

Pyrochroidæ.

Schizotus cervicalis *Newm.*

Curculionidæ.

Lepyrus colon *Linn.*
Balaninus uniformis *Lec.*

Scolytidæ.

Polygraphus rufipennis *Kirby.*

HYMENOPTERA.

Tenthredinidæ.

Pristiphorus identidem *Nort.*
Strongylogaster annulosus? *Nort.* (a var.?)
Dolerus arvensis *Say.*
* Macrophya epinota *Say.*
" fuliginea *Nort.*
Tenthredo rufipes *Say.*
" eximia *Nort.*
" signata *Nort.*

Uroceridæ.

Xiphydria provancheri *Cr.*

Ichneumonidæ.

Ichneumon sublatus *Cr.*
" leviculus *Cr.*
" w-album *Cr.* sp.?
" approximans (?) *Prov.*
Platylabus scutellatus *Prov.*
" signatus *Prov.*
Phygadeuon sp.?
Cryptus annulatus *Prov.*
Mesostenus albomaculatus *Cr.*
Ophion bifoveolatum *Brulle.*
Anomalon rufulum *Prov.*
Xenoschesis alpinensis *Davis* ms.
* Opheltes glaucopterus *Linn.*
Mesoleius canadensis *Prov.*
" bicolor *Davis* ms.
* Arotes amœnus *Cr.*
" decorus *Say.*
Pimpla inquisitor *Say.*
* " pedalis *Cr.*
Schizopyga frigida *Cr.*
Meniscus elegans *Cr.*
" " var.
Xylonomus stigmapterus *Say.*

Braconidæ.

Bracon simplex *Cr.*
Rhogas sp.?
Helcon dentipes *Brulle.*

Chrysididæ.

Elampus sp.?
* Chrysis nortoni *Aaron.*

Formicidæ.

* Camponotus herculaneus *Linn.*
Formica sp.?
" "
" "

Lasius sp.?
Myrmica sp.?

Apidæ.

Bombus pennsylvanicus *DeG.*
*Apis mellifica *Linn.*

LEPIDOPTERA.

Rhopalocera.

*Danais archippus *Fab.*
Argynnis atlantis *Ewd.*
" myrina *Cram.*
" montinus *Scud.*
" bellona *Fab.*
*Melitæa harrisii *Scud.*
Grapta faunus *Edw.*
" gracilis *G. & R.*
Vanessa antiopa *Linn.*
" milbertii *Gdt.*
*Limenitis arthemis *Dru.*
" disippus *Gdt.*
Chionobas semidea *Say.*
Pieris napi *Esp.*
" rapæ *Linn.*
Colias philodice *Gdt.*
*Papilio turnus *Linn.*
*Pamphila hobomok *Harr.*
" peckius *Kirby.*
* " cernes *Edw.*
Nisoniades icelus *Lint.*

Heterocera.

Albuna torva *Hy. Edw.*
Aegeria fulvipes *Harr.*
*Alypia langtonii *Coup.*
Œdemasia concinna *Pack.*
Platypteryx arcuata *Walk.*
Agrotis prasina.
" sp.?
*Pachnobia wockei *Moesch.*
*Carneades opipara *Morr.*
Plusia vaccinii *Hy. Edw.*
" simplex *Guen.*
Anarta melanopa *Thunb.*
" schœnherri *Zett.*
Lobophora sp.?
*Carsia paludata *Thunb.*
Eupithecia cretaceata *Pack.*
Laodamia fusca *Haw.*
Cacœcia georgiana *Grt.*
Ptycholoma melaleucana *Walk.*
Sciaphila mœschleriana *Wocke.*
Penthina intermistana *Clem.*

HEMIPTERA.

Heteroptera.

Corimelæna atra *Am. & S.*
*Canthophorus cinctus *Pal. Beauv.*
Podisus spinosus *Dallas.*
" modestus *Dallas.*
Brochymena arborea *Say.*
Acanthosoma lateralis *Say.*
Ligyrocoris sylvestris *Linn.*
Eremocoris ferus *Say.*
Trigonotylus ruficornis *Fall.*
Leptopterna dolobrata *Linn.*
Resthenia insignis *Say.*
" insitiva *Say.*
Lopidea confluens *Say.*
*Calocoris rapidus *Say.*
Capsus ater *Linn.*
Monalocoris filicis *Linn.*
*Capsid gen.? sp.?
" " "
Aradus 4-lineatus? *Say.*
Coriscus punctipes *Reut.*
Limnoporus rufoscutellatus *Lat.*
*Salda deplanata *Uhl.*
" sp.?

Homoptera.

*Ceresa bubulus *Fab.*
Cyrtolopus sp.?
Ophiderma salamandra *Faim.*
Delphacid gen.? sp.?
Philænus lineatus *Linn.*
*Bythoscopus sobrius *Walk.*
" pruni *Prov.*
Oncometopia costalis *Fab.*
Helochara communis *Fitch.*
Deltocephalus configuratus *Uhl.*
Cicadula 6-notata *Fall.*
" slossoni *VanD.*

DIPTERA.

Bibio sp.?
*Chironomus sp.?
Dicronomyia pudica *O. S.*
Tipula sp.?
Xylophagus rufipes *Loew.*
" sp.?
Therioplectes lasiophthalmus *Macq.*
Dioctria albius *Walk.*
Cyrtopogon bimacula *Say.*
Holcocephala abdominalis *Say.*
Dasyllis flavicollis *Say.*
Symphromyia pullata *Coq.*
*Laphria pubescens *Willist.*
" sericea *Say.*
*Melanostoma obscura *O. S.*
*Syrphus contumax *O. S.*
" torvus *O. S.*
* " lesueurii *Macq.*
Eristalis compactus *Walk.*
" dimidiatus *Wied.*
" tenax *Linn.*
Also many species of Tachinidæ and Muscidæ not identified.
*Xylota curvipes *Loew.*
Temnostoma bombylans *Fab.*
" alternans *Loew.*
Homalomyia sp.?
Cordylura sp.?
Scatophaga stercoraria *Linn.*
*Tetanocera plumosa *Loew.*
" saratogensis *Fitch.*

ORTHOPTERA.

*Pezotettix glacialis *Scud.*
Melanoplus femur-rubrum *De G.*
Chortophagus viridifasciata *De G.*
Hippiscus tuberculatus *P. de B.*
Tettix granulatus *Kirby.*
" ornatus *Say.*
Tettigidea polymorpha *Burm.*
Periplaneta americana *Fab.*

NEUROPTERA.

Nehalennia irene *Hag.*
Chrysopa oculata *Say.*
Several Phryganidæ, etc., unidentified.

ARANEÆ.

Clubiona canadensis *Em.*
Pardosa brunnea *Em.*

PHALANGIDÆ.

Oligolophus montanus *Bks.* ms.

ACARINÆ.

Rhyncolophus montanus *Bks.* n. sp.

A NOTE ON CRYPTOHYPNUS.

By GEO. H. HORN, M.D.

In a recent number of "Entomologische Nachrichten" (1893, pp. 305–311) Mr. E. Bergroth publishes some remarks on the Cat. Col. Eur. by E. Reitter, which have but little interest for our fauna until *Cryptohypnus* is reached, concerning which he says: "The genus *Crytohypnus* Latr. is still confounded with *Hypnoidus* Steph. They are, however, two distinct genera standing well apart, as Schioedte has shown, defining them in the following manner:

Cryptohypnus.—Epimera of mesothorax reaching the coxa,

the outer closure of the coxal cavity formed of mesosternum, mes-epimeron and metasternum.

Hypnoidus.—Epimera of mesothorax not reaching the coxa, the cavity closed externally by the meso- and metathorax.

Schioedte's work was entirely overlooked by me, and the characters above noted were equally unobserved. As the genera formed, at the expense of *Cryptohypnus*, seemed untenable, I ventured the remark that, "if any division of *Cryptohypnus* be thought necessary, that based on the form of the prosternal sutures appears to be the only one desirable." The genus *Hypnoidus*, as defined, is really due to Schioedte, as without his definition it is as untenable as several others which are not now recognized as valid.

As thus defined, our species arrange themselves in the following manner:

Hypnoidus *Steph.* (Schioedte).
striatulus *Lec.*
delumbis *Horn.*
charis *Say.*
ornatus *Lec.*
cucullatus *Horn.*
melsheimeri *Horn.*
caurinus *Horn.*
dispersus *Horn.*
gradarius *Horn.*
tumescens *Lec.*
musculus *Esch.*
dubius *Horn.*
gentilis *Lec.*
æstivus *Horn.*
perplexus *Horn.*
restrictulus *Mann.*
obliquatulus *Mels.*
pectoralis *Say.*

Cryptohypnus *Latr.*
littoralis *Esch.*
grandicollis *Lec.*
hyperboreus *Gyll.*
barbatus *Sahlb.*
abbreviatus *Say.*
impressicollis *Mann.*
nocturnus *Esch.*
squalidus *Lec.*
funebris *Cand.*
planatus *Lec.*

On comparing the above list with my essay on *Cryptohypnus*, it will be observed that our species divide into the two genera on precisely the lines indicated by me, based on the form of the prosternal sutures.

NOTES ON LARINIA AND CERCIDIA.

By NATHAN BANKS.

The genus *Larinia* was established by Simon in 1874, for two spiders from France. The genus is readily distinguished from its ally, *Singa*, by having the p. m. e. nearly touching, and the larger a. s. e. quite widely separated. The body is elongate, and the abdomen projects over the cephalothorax in a blunt point. *Epeira directa* Hentz agrees with the characters of *Larinia*, and so must belong to it. In the Proc. Acad. Nat. Sci. Phila., 1892, p. 127, Dr. McCook forms, for *E. directa*, the new genus *Drexelia;* but as the type species belongs to *Larinia*, *Drexelia* becomes a synonym. I have seen another species of this genus which may be separated from *L. directa* by the following characters:

Metatarsus I longer than tibia I and twice as long as the width of body, sternum yellow . . . . . **L. directa.**

Metatarsus I not longer than tibia I and not longer than width of body, sternum black . . . . . **L. borealis.**

Larinia borealis nov. sp.

Length 6 mm.; tibia plus patella I 2.5 mm. Cephalothorax pale yellowish, with a black line on the margin and a black line, bifid near anterior end, reaching from the dorsal groove to the p. m. e. Mandibles, palpi and legs pale yellowish; sternum black, with a narrow median yellow line. Abdomen gray, with black spots on the sides, above with a pale median stripe, and a row of four black spots on each side near tip; venter with three narrow black stripes, uniting at base of spinnerets. Cephalothorax much narrowed in front, but not as slender as in *L. directa;* sternum barely narrowed in front; legs moderate, much shorter than in *L. directa*, especially the anterior pairs; abdomen about twice as long as wide, pointed in front, broadly rounded behind.

I have six specimens of this species, four from Olympia, Wash. (Mr. Trevor Kincaid), and two from Franconia, N. H. (Mrs. A. T. Slosson).

Larinia directa Hentz.

Epeira directa Hentz and *Epeira rubella* Hentz.

Drexelia directa McCook.

Length 10 mm.; tibia plus patella I 55 mm. This is a much more slender species than *L. borealis*, the abdomen three times as long as broad, and the legs much longer. The abdomen varies much in markings, usually having a yellowish stripe above, and some black spots or lines each side; the venter has two brown lines uniting just before the

spinnerets; the sternum is yellow; the legs are sometimes finely pointed with black. The abdomen projects beyond the spinnerets farther than in *L. borealis*.

I have collected it in eastern Texas, where it makes an oblique web in grass. Hentz had it from South Carolina and Alabama.

Cercidia Thorell, 1870.

This genus is also close to *Singa*, but differs in having the fourth pair of legs longer than the first. The abdomen is pointed in front like that of *Larinia*. One species is known in Europe, and I have received it in a collection of spiders from Franconia, N. H., made by Mrs. A. T. Slosson.

Cercidia prominens Westring.

Singa scutigera Westr.
Epeira bella Mead.
Atea spinosa Ohl.

Length 5 mm. Cephalothorax red; mandibles red with a black spot; sternum black; legs yellowish with brown rings; abdomen brownish above, with a large reddish shield nearly covering the dorsum, an indistinct light stripe and behind some transverse black lines; venter with a median black stripe as wide as sternum, yellowish each side; there are five short black spines in front on the dorsal shield, and four prominent muscular spots above. The cephalothorax has above on the median line two prominent spines. The epigynum consists of a short and broad finger arising from the anterior edge of a cavity which is much broader than long.

One female, Franconia, N. H.

———o———

ON THE SPECIFIC IDENTITY OF ÆSCHNA CLEPSYDRA Say and Æ. CRENATA Hagen (*eremita* Scudder).

By PHILIP P. CALVERT, Philadelphia, Pa.

In my recent "Catalogue of the Odonata (Dragonflies) of the vicinity of Philadelphia, with an Introduction to the Study of this group of Insects" (Trans. Am. Ent. Soc. xx, pp. 152*a*–272, 1893), I have placed *Æschna crenata* Hagen 1856, and *Æ. eremita* Scudder 1866, as synonyms of *clepsydra* Say 1839, promising in a foot-note (p. 248) to present the evidence for this action later. This paper is a fulfilment of that promise.

The specific identity of *crenata* and *eremita* has been known since 1875, and needs no discussion here.

Having suspected that *clepsydra* and *eremita* were but two ex-

treme forms of one and the same species, I sent a specimen of what I presumed to be *clepsydra* to Mr. Samuel Henshaw, with the request that he compare it with specimens at Boston and Cambridge. His reply, dated Cambridge, July 7, 1893, is as follows: "Your 'presumed *clepsydra*' agrees in every point you mention with the *clepsydra* in the M. C. Z. [Museum of Comparative Zoölogy] collection, and also with the Say type in B. S. N. H. [Boston Society of Natural History] Harris collection, as far as it can be compared with it. In the Say specimen, one of the sup. app. is wholly destroyed, and also the apical portion of the other; the inf. app., clypeus, and comparative robustness of the Say specimen agree with your 'presumed *clepsydra*' rather than with *eremita*."

I possess one of the original ♂ types of *eremita* Scud., given to me by Dr. Hagen. The following table shows the differences which I find between this type and a male "presumed *clepsydra*" almost exactly like the one sent to Mr. Henshaw. With the exception of number 2, these are the "points you mention" referred to in Mr. Henshaw's letter:

Æ. eremita Scud. ♂ type.	Presumed *Æ. clepsydra* Say ♂.
1. More robust in form, *e. g.*, greatest width of thorax 8 mm.	1. Less robust, *e. g.*, greatest width of thorax 6.5 mm.
2. A black line on the suture between nasus and frons.	2. No such black line.
3. Clypeus broad (5 mm.) in proportion to its height (3 mm.)	3. Clypeus narrower (3 mm.) in proportion to its height (2.6 mm).
4. Auricles on second abdominal segment with five teeth, the outer two smaller.	4. The same with four teeth, the outer one very small.
5. Median basal tooth of 10 not compressed, blunt at tip when viewed from behind.	5. Compressed, sharp at tip when viewed from behind.
6. Sup. app. not abruptly narrowed in the basal third; extreme apex barely with an acute point.	6. Sup. app. abruptly narrowed in the basal third; extreme apex prolonged into a distinct, acute process.
7. Inf. app. one-half as long as sup. app.	7. Inf. app. more than half as long as sup. app. and more acute at tip.

None of these differences are constant, and they vary independently of each other. I can find no characters that are invariable, and consequently regard the two specimens here tabulated as *two extremes of one and the same species.*

These conclusions are based on a study of forty males from the following localities: An original type of *eremita* Scud. from

Hermit Lake, Mt. Washington, N. H.; twenty-two from the same locality collected Aug. 2, 1890, and two from near Fabyan's, White Mountains, N. H., Aug. 22, 1889, by myself; eight from Lake St. Regis, Franklin County, N. Y., by Mr. J. Percy Moore; two from Pictou, Nova Scotia, by Mr. W. Sheraton; two from Sherborn, Mass., by Mr. A. L. Babcock; two from the Catskill Mountains, N. Y., August 28, by Mr. E. M. Aaron (A. E. S.); one from St. Johns, Newfoundland, by the Peary Relief Expedition (Phila. A. N. S.). I have not been able to separate the females of this species from those of *Æ. constricta*, *verticalis*, etc.

In view of the existence of Dr. Scudder's careful and detailed description of *eremita*, it will be necessary here to note merely those variations from his description and from Dr. Hagen's description of *clepsydra* (Syn. Neur. N. A., p. 122, 1861) which are revealed by a study of the above material.

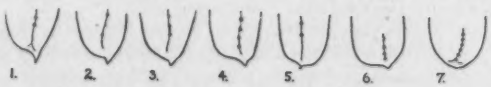
The black line on the fronto-nasal suture is present in all the males (23) from Hermit Lake, in the one from Newfoundland, in one from the Catskills, and in one from Lake St. Regis, but absent in the remaining fourteen.*

The single male from Lake St. Regis which possesses this black line approaches the males from Hermit Lake in the shape of the sup. app. more closely than do any of the other seven from Lake St. Regis which have not this black line. Nevertheless, the transitions in shape of the sup. app. between all eight from Lake St. Regis are very gradual.

The number of teeth on the auricles varies as follows: 3–6 (Hermit Lake), 3–4 (Lake St. Regis), 3–4 (Catskills), 2–4 (Sherborn), 3 (Newfoundland, Fabyan's); their number is frequently different on the right and left auricles of the same individual.

The blue spots on the tenth abdominal segment are confluent in three males from Lake St. Regis, not confluent in the remaining thirty-seven.

The shape of the superior appendages is the most important structural character involved in this discussion. The variation is shown in the accompanying series of seven figures.



Dorsal view of apex of right superior appendage of a series of males of *Æschna clepsydra* Say, from various localities. (Enlarged.)

1. Lake St. Regis; 2. Fabyan's, N. H.; 3. Lake St. Regis; 4. Pictou, N. S.; 5. Lake St. Regis; 6, 7, Hermit Lake; 6 is from the original type of *eremita* Scud., quoted in the text. Some of the denticulations on the carina are shown by minute circles.

* Dr. Hagen writes of *Æ. eremi*[*ic*]*a*, "The black anterior line on the front is sometimes wanting." Proc. Bost. Soc. N. H. xviii, p. 34.

The shape of the superior appendages in the males from Hermit Lake varies but slightly (Figs. 6 and 7), while the maximum variation is shown by those from Lake St. Regis (Figs. 1, 3, 5). Those from Fabyan's, Pictou, Sherborn and the Catskills incline towards the typical *clepsydra* in this detail, the one from Newfoundland to the typical *eremita*.

The number of denticulations on the carina of the superior appendages varies from 4–9 (Hermit Lake), 4–8 (Fabyan's), 4–7 (Lake St. Regis), 5–7 (Catskills), 8 (Newfoundland), and is not always the same on the right and left appendages of the same individuals. In the two males from Sherborn the denticulations are so slight as to suggest that transitional forms may hereafter be found connecting this species with *Æ. verticalis* Hag., which itself is but a variety of the circumpolar *juncea* L. (See Trans. Am. Ent. Soc. xx, p. 248.)

The following measurements show the variations in size in millimeters: Abdomen (including appendages), 54–57.5 (Hermit Lake), 51–57.5 (Lake St. Regis), 52–53.5 (Fabyan's), 52 (Pictou), 52–56 (Sherborn), 54 (Catskills), 57.5 (Newfoundland). Hind wing: 43–47 (Hermit Lake), 44–45 (Lake St. Regis), 43–44.5 (Fabyan's), 42 (Pictou), 45–50 (Sherborn), 47 (Catskills), 49.5 (Newfoundland). Number of antecubitals on front wings: 16–21 (Hermit Lake), 19–23 (Lake St. Regis), 18–20 (Fabyan's), 16 (Pictou), 16–22 (Sherborn), 17–19 (Catskills), 17–18 (Newfoundland); of postcubitals on the front wings: 12–18 (Hermit Lake), 13–14 (Lake St. Regis), 11–13 (Fabyan's), 10–11 (Pictou), 10–14 (Sherborn), 12–13 (Catskills), 14 (Newfoundland).

On the *front* wings, the antecubitals which are thicker than their fellows are:

1st and 5th — 3 Lake St. Regis, 1 Sherborn, 2 Catskills.
1st " 6th — 2 Hermit Lake, 1 Lake St. Regis, 1 Fabyan's.
1st " 5th on one side, 1st and 6th on other — 2 Pictou, 1 Fabyan's.
1st " 7th — { 13 Hermit Lake, 1 Sherborn, 3 Lake St. Regis. / 1 Newfoundland.
1st " 5th on one side, 1st and 7th on other — 1 Hermit Lake.
1st " 6th " " " " — { 2 Hermit Lake. / 1 Lake St. Regis.
1st " 7th " " 1st and 8th " — 4 Hermit Lake.

On the *hind* wings, the antecubitals, which are thicker than their fellows, are:

1st and 6th — 2 Hermit Lake, 1 Sherborn.
1st " 6th on one side, 1st and 5th on other — 1 Lake St. Regis.
1st " 7th — 11 Hermit Lake, 4 Lake St. Regis, 1 Fabyan's, 1 Sherborn, 1 Catskills, 1 Pictou, 1 Newfoundland.
1st " 7th on one side, 1st and 6th on other — 5 Hermit Lake, 1 Catskills, 1 Pictou.
1st " 7th on one side, 1st and 8th on other — { 1 Hermit Lake. / 2 Lake St. Regis.
1st " 7th on one side, 1st and 9th on other — 1 Lake St. Regis.
1st " 8th — 2 Hermit Lake.
1st " 8th on one side, 1st and 6th on other — 1 Fabyan's.

The number of cells in the discoidal triangle of the front wings varies even in individuals from the same locality, but no tabulation has been made.

The preceding data on variation have been included in order that they may serve as cautions against regarding the conditions to which those data refer as specific.

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The known distribution of this species is—Labrador to Massachusetts, New York, Maryland, Illinois, Michigan, Wisconsin, Dakota, Saskatchewan, Irkutsk and Wilui River (Siberia), Finland.

———o———

Regarding the Identity of Oxyporus rufipennis and stygicus.

By L. B. Walton.

LeConte, in his paper on certain genera of Staphylinidæ Oxytelini, etc. (Trans. Amer. Ent. Soc. vi, October, 1877), says in reference to *Oxyporus rufipennis* Lec.: "This is perhaps only a color variation of the entirely black *O. stygicus* Say, but as yet I have seen no intermediate specimens. There is no difference in form or structure."

A year ago last Summer, while doing some collecting at Bear Lake, Pa., I took a large number of both *stygicus* and *rufipennis*, and also what appeared to be an intermediate form having the elytra black with two yellow vittæ plainly evident on each elytron. The occurrence of this form, together with the fact that all were taken on the same piece of fungus, would seem to bear out LeConte's supposition as to *rufipennis* being merely a variety of *stygicus*. Having sent some specimens to Dr. Horn, he says: "While I believe the two are one species, something more than an opinion is required to corroborate it," referring to the fact that it would be necessary to take them *in coitu* to bring in the conclusive proof.

ENTOMOLOGICAL NEWS.

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PHILADELPHIA, PA., JANUARY, 1894.

THERE are a number of entomologists among us who are expert collectors, and who have in the course of their collecting trips gleaned many interesting and important facts relating to insect life and habits. They are usually well and favorably known among their brethren, who may be able, from time to time, to get some benefit from association with them, but usually this is as far as it goes. The general entomological public reaps no advantage from their lives, and the literature is not enriched thereby. There are many such men, and they live and die, and their knowledge and information unfortunately passes away with them. This should not be. While the man may enjoy his hobby, and get much benefit from it for himself, there is no reason why he should not make an effort to benefit others also, and the study in general by publishing his notes from time to time. Perhaps he is diffident and does not care to run the risk of publication, fearing it may not be new on account of his insufficient knowledge of the literature. His publisher will probably know about this, and he can let him shoulder it. We know of one instance where a long life was devoted to entomology without any benefit to others, but in this instance the individual was postponing publication from day to day and year in and year out until he died. We can only say that we think it incumbent on all to publish their observations.

Saprinus sulcatulus Schmidt. Ent. "Nachrichten," 1890, p. 51. For a specimen of this I am indebted to Mr. Geo. Lewis, and find it not in any way differing from *scissus* Lec.—G. H. HORN.

DEPARTMENT OF ECONOMIC ENTOMOLOGY.

Edited by Prof. JOHN B. SMITH, Sc. D., New Brunswick, N. J.

The Grain Moth at the Fair.—Early in the season, while yet matters were in an extremely unfinished condition at Chicago, I wandered through the "Palace of Agriculture," admiring the enormous quantities of corn displayed in every possible fashion; used as ornaments, and for decorations of every descriptions. Wheat, in any quantity, was also represented, and ingenious use was made of it to enhance the beauty and characteristic features of this building. At that time I noticed only a very slight amount of grain and corn that appeared infested by the grain moth; here and there, in an ear of corn, there was a kernel with the little hole characteristic of the injury done by this insect. In August, first early in the month, and again some time about the middle, I again wandered through the building, observing matters here and there, and I was now struck by the fact that there was not an exhibit in which even the majority of ears of corn did not show signs of the work of this insect. Even in the exhibit made by the Agricultural Colleges and Experiment Stations, almost every ear showed some infection, and not only corn grown in one part of the country, but wherever Indian corn was exhibited were signs of this insect apparent.

In October, Prof. Voorhees, of the New Jersey Station, made another visit to the Fair, and also made rather a close examination of the grains and corns that were exhibited. He informs me that everything was ruined by the insect; that in the New Jersey exhibit, which, of course, he examined more particularly; every jar of grain was simply a nest of moths and larvæ, and that everywhere the same appearance prevailed; that in fact, the whole building had become one vast breeding ground for these insects. Orders were therefore given, that all the grain that had been gathered with so much trouble, the finest specimens of each variety, the great ears of Indian corn, everything in fact should be destroyed to prevent the introduction of the insect into localities in which perhaps it had not yet appeared naturally. Some interesting questions come up now—what will be the effect of the liberation of the vast number of insects which matured in this immense building? What will become of them? Will they be able to live through the Winter, or will they meet destruction by the elements? Have they not already spread from that building into the surrounding territory, or will they not seek shelter when they are disturbed by the clearing out of the building, find their way into the country around about, into barns and into graineries, and will they not cause considerable damage? The questions may not be of very much importance; but it is rather an interesting matter, because other insects, not so noticeable perhaps as this grain moth, may have been quietly breeding in some of the exhibits gathered at Chicago during the present season, and we may hear of them again at no distant date, in a manner

which may raise the question in the minds of some whether this Fair was anything but an unmitigated nuisance. On the enormous number of plants that were brought together from all parts of the country, and indeed from other climes and from other countries with similar climate to our own, can we be sure that no insects were introduced on them? We can question this at present; but time alone can answer the questions asked.

Handbook of the Destructive Insects of Victoria. Part II.—This little work by Mr. C. French, the government entomologist, is at hand. It contains rather more than 200 pages of text prepared with great care, and colored plates numbered from 15 to 36, illustrating all of the species treated in the book, and most of them in all stages; structural details being also given in some instances. The plates are generally good, so far as appearance is concerned, and undoubtedly add very largely to the value of the book for the agriculturist. The figures very frequently lack in detail, and are of inferior value to the the scientific student; but they are fully sufficient from the standpoint of the farmer, for whom, after all, they were prepared. It is to be regretted, perhaps, that we cannot in our own country illustrate our publications somewhat more in this same style; but, really, good colored plates are with us so frightfully expensive as to be quite beyond the reach of our Experiment Stations, and to be possible only to the National Government; even here it is necessary to limit the number because of the cost. There is an appendix to the book treating of spraying devices, and there are a considerable number of plates in black and white, illustrating this appendix, and showing machinery, pumps and nozzles of all kinds—good, bad and indifferent. It is a matter of some interest that twelve of the colored plates illustrate insects that are also injurious in our own country, including among them such pests as the plum cucurlio, the cabbage louse and others of like ilk; only a very few of the species being really characteristic of the country in which they are troublesome. This illustrates one of the points which is worth while considering in our speculations concerning remedies, and that is that a certain number of species seem, in the provision of nature, to occur in a certain abundance each year, and the natural checks, such as they are, are intended to leave a very wide margin for the increase of the species. In cases of this kind we must entirely ignore the so-called natural checks, and must act as if none such were in existence.

INSECT'S DEADLY STING (appearance of a winged spider in Kentucky).—Newport, Ky., August 3.—A deadly insect has appeared about the electric lights. People stung by the insect suffer intensely. A sudden swelling and a peculiar somnolent condition follow the bite. Michael Ryan was stung Saturday and died last night. Judge Helm, of the Circuit Court, is laid up with his neck swollen to twice its normal size. Harry Clark, another victim, is in a precarious condition. Local entomologists describe the bug as a sort of winged spider.—*Newspaper.*

Notes and News.

ENTOMOLOGICAL GLEANINGS FROM ALL QUARTERS OF THE GLOBE.

[The Conductors of ENTOMOLOGICAL NEWS solicit, and will thankfully receive items of news, likely to interest its readers, from any source. The author's name will be given in each case for the information of cataloguers and bibliographers.]

To Contributors.—All contributions will be considered and passed upon at our earliest convenience, and as far as may be, will be published according to date of reception. ENTOMOLOGICAL NEWS has reached a circulation, both in numbers and circumference, as to make it necessary to put "copy" into the hands of the printer, for each number, three weeks before date of issue. This should be remembered in sending special or important matter for certain issue. Twenty-five "extras" without change in form will be given free when they are wanted, and this should be so stated on the MS. along with the number desired. The receipt of all papers will be acknowledged.—ED.

LAST winter, while collecting at Lake Worth, Florida, in the beginning of March, I captured a ♀ specimen of *Eunica tatila* H. S. I do not see this species mentioned in any North American lists. It is a much larger insect than *E. monima* Cram., and very beautiful. *Eunica tatila* is a common insect in Cuba and also in Mexico.—W. SCHAUS.

IN a foot-note at the bottom of page 220 of my recent Bulletin on *Pœcilocapsus lineatus*, I question the date on which Mr. Webster obtained adults for use in his experiment at Lafayette, Ind. Mr. Webster has called my attention to the fact that, in the case of *Meromyza americana*, the second brood of adults emerged earlier at Lafayette, Ind., than Dr. Fitch had found them in New York. This indicates that difference of about two degrees in latitude between Lafayette, Ind., and Ithaca, N. Y., makes a difference of two or three weeks in the emergence of insect life; and the seemingly very early appearance of the adults of the Four-lined Leaf-bug, at the former place, may thus be accounted for. I am glad of the opportunity to make the correction.—M. V. SLINGERLAND, Cornell Experiment Station.

NOTES ON THE CUCUJIDÆ, OBSERVED IN SAN DIEGO COUNTY, CAL.—*Silvanus surinamensis* (Linn.) abundant in cereals; *Silvanus bidentatus* (Fabr.) not very common, occurs with the preceding species; *Silvanus imbellis* (Lec.) one specimen; *Silvanus advena* (Waltl.) common in granaries and in refuse about stables; *Nausibius dentatus* (Marsh.) occasionally taken in commercial storehouses; *Læmophloeus biguttatus* (Say.) sometimes met with in immense numbers under decaying and fungus-covered bark of dead sycamores (*Platanus racemosus*); *Læmophloeus cephalotes* (Lec.) rare, occurs under the bark of the sycamore, blue gum (*Eucalyptus globulus*), pepper tree (*Schinus molle*), live oak (*Quercus agripolia*); *Brontes* d. var. *truncatus* (Mots.) common, under the bark of the live oak.—F. E. BLAISDELL, M.D.

NOTE ON CYCHRUS ELEVATUS.—The following instance of gregariousness in Carabidæ may be of interest: A few years ago, while collecting on the south shore of Long Island, I found, on the bank of a fresh-water pond, twenty-two specimens of *Cychrus elevatus*, all within an area not larger than the palm of my hand. They were crowded together in a small hollow under a board, and were very sluggish, so that I had no difficulty in taking them all. The males were about twice as numerous as the females. I have never before or since found more than two specimens together. All the Long Island specimens of *elevatus* which I have seen are slightly different from the ordinary type, being smaller and more slightly built, with shorter legs. The color is a brighter purple and not so metallic, or cupreous, as the average.—W. C. WOOD, New York.

SURGEON-GENERAL SIR WILLIAM MOORE (Medical Mag., July, 1893) regards the dissemination of disease by flies as a matter looked upon with too much indifference, and instances an epidemic of anthrax which was spread by flies which had covered a carcass of a dog thrown into a ditch in Cortal. He quotes the experiments of Lawtschenks with flies and cholera germs, and observes that it is worth noticing, in that in India it is during the time and season of the greatest prevalence of cholera that flies most abound. The possibility of flies carrying the organisms of typhoid fever and phthisis is suggested, and the belief is expressed that leprosy is often conveyed by flies which appear to be particularly fond of leprous sores, and of investigating in the way of a sore on a healthy person. There is no doubt that ophthalmia is so spread, and an instance is given of complete destruction of an eye from diphtherial inflammation following the sting (bite) in the eye by a fly which had apparently arisen from a dung-hill.

THE SAY MEMORIAL CHAPTER of the Agassiz Association is an organization composed of those interested in Entomology, living in various parts of the United States, and conducting their proceedings by correspondence. Its object is "to promote the study of entomology in all its bearings, and to cultivate social and friendly relations between those in any way interested in the science. Each member of the Chapter shall be required to write a bi-monthly letter or report of any special course of study he is pursuing, or in narrative form, recount observations of habits of insects, collecting notes, etc. These letters must contain not less than two hundred words, and will be written on paper furnished by the Secretary-Treasurer, to whom they must be forwarded. This officer will keep a record of these letters, and start them on their course around the Chapter, each recipient of a letter forwarding it according to a geographically arranged register." Members are proposed by the Secretary-Treasurer, two-thirds vote being necessary for election. The officer just named is the only one recognized by the chapter; his duties are indicated by the preceding statement and by his title; he makes a semi-annual report to the President of the Agassiz Association. The entrance fee to the Chapter is one dollar, annual dues one dollar. The originator of the Chapter

is Mr. William D. Richardson, of Fredericksburg, Va., and the present courteous and efficient Secretary-Treasurer is Mr. Roy Hopping, of Bloomfield, N. J., who will gladly furnish further information. By extending the membership all over the United States, it is hoped to make the chapter an important factor in entomological study, and this attempt has the hearty sympathy of the NEWS. It is perhaps not too much to hope that this journal may occasionally be favored with a "circulating" paper from the Chapter.

EXPERIMENTAL AGRICULTURE. (Chairman Hatch does not agree with the President).—Washington, December 11.—There are at least two recommendations in the President's Message which will not receive the universal sanction of the Democrats in the House. These relate to the extinction of the agricultural experiment stations in the various States and the abolition of the present system of distribution of seeds by the Department of Agriculture. Representative Hatch, the Chairman of the House Committee on Agriculture, is outspoken in his opposition, and says that since the message appeared not a single member has expressed to him a concurrence in the President's position, while scores have come to him and urged him to continue to incorporate in the Agricultural Appropriation bill the comparatively small sums necessary for the maintenance of these two features. "The experiment stations were established by an act of Congress approved March 2, 1887," says Mr. Hatch, "and have been exceedingly popular with the representatives of the agricultural interests of the country. Many of these stations have produced remarkable results. They were established by the almost unanimous vote of Congress, there being, as I remember, not even a division on the question. I remember that after the measure had passed both houses, I went to the White House in company with a number of intelligent and highly reputable gentlemen from some of the agricultural colleges, and Mr. Cleveland, in my presence, spoke in the warmest terms of the measure. It was by his signature that it became a law. Since that time there has been no criticism of the work of these stations, and no controversies except as to the division of the funds in two or three States. No agricultural association, organization or club," continued Mr. Hatch, "has ever spoken of these experimental stations except in commendation and approval. They have been established about six years, and are now in a condition to render double the service and impart more valuable information to the States than at any time since they have been in existence. They have erected buildings, provided chemical apparatus, and the appropriations from this on will result even more largely than ever in the prosecution of experiments that will be of immense value in the diffusion of practical information."

THE Rev. Dr. John G. Morris, of Baltimore, is probably the oldest entomologist in the United States. On November 14th, last, he celebrated his ninetieth birthday. Dr. Morris published the first catalogue of American Lepidoptera.

MISTAKEN FOR A CRANK (a Yale professor's kindly treatment by the Indians who killed Custer).—"One very peculiar characteristic of the Indian," said Major Barbour, a former plainsman now metamorphosed into a clubman and raconteur, "is his reverence, amounting to absolue fear in many instances, of an insane person. They never harm one whom they believe to be mentally afflicted. I remember one striking instance which will illustrate. I was a member of the expedition headed by Gen. Custer that made a tour through the Yellowstone Valley and that section of the country the year before the Custer massacre. It was put on foot in the interest of science, and we had a lot of fellows from the Smithsonian Institute and about a dozen Yale professors. It was a big party, comprising two or three companies of cavalry, one of infantry and some artillery, so the Sioux, who at that time simply swarmed over that country, were afraid to tackle us; but they hung around us all the time, and Gen. Custer gave orders, after two men who were hunting had been killed, that no one should leave camp without permission. Those Yale professors just worried the life out of the soldiers. Every professor had a detail of five men who had to watch him. They would go around picking up bugs and chasing butterflies all over the prairie, and would break up rocks and pow-wow over them with magnifying glasses until the soldiers swore that every man of them was a howling idiot. One day the worst old fellow in the crowd, who wore two pairs of glasses, one red and one green, managed in some way or other to get out of the sight of his detail and wandered two or three miles away. He ran plump into a gang of Sioux. He walked up to them and offered to shake hands. They grabbed him, and the first thing they did was to dive down into a big green baize bag he carried. They pulled out lizards and pieces of clay and bits of rock and bugs and the worst assortment of truck imaginable. Just about this time the old professor caught sight of a peculiar-looking bug. He caught it, pulled out his glass, and began to study it. That settled it. An Indian took him by the hand, led him to a hill close by, and, pointing to the army below, said 'Go.' He came back and said that the soldiers totally misunderstood the Indians. 'Why, I found them the most polite and courteous of people,' said he to Gen. Custer. But an old chief afterwards told me that they wouldn't have him stay in that country for anything on earth."—*Washington Post.*

Identification of Insects (Imagos) for Subscribers.

Specimens will be named under the following conditions: 1st, The number of species to be **limited to twenty-five** for each sending; 2d, The sender to pay all expenses of transportation and the insects to become the property of the American Entomological Society; 3d, Each specimen must have a number attached so that the identification may be announced accordingly. Exotic species named only by special arrangement with the Editor, who should be consulted before specimens are sent. Send a 2 cent stamp with all insects for return of names. Before sending insects for identification, read page 41, Vol. III. Address all packages to ENTOMOLOGICAL NEWS, Academy Natural Sciences, Logan Square, Philadelphia, Pa.

Entomological Literature.

THE ENTOMOLOGIST'S MONTHLY MAGAZINE. London, November, 1893.—On *Trachyscelis* with descriptions of three new species, G. C. Champion. Notes on the earlier stages of the Nepticulæ, with a view to their better recognition (cont.), J. H. Wood.—December, 1893. On two halophilous Hemiptera, E. Bergroth, M.D. Observations on Coccidæ (No. 7), R. Newstead, fig.

SCIENCE. New York, Nov. 3, 1893.—The systematic position of the Diptera, J. B. Smith.—Nov. 10. The systematic position of Diptera, C. V. Riley.—Nov. 17. The sense-organs on the legs of our white ants, *Termes flavipes* Koll., Dr. A. C. Stokes, figs.—Nov. 24. On the systematic position of the Diptera, S. W. Williston.

CORNELL UNIVERSITY AGRICULTURAL EXPERIMENT STATION. Bulletin 58. Ithaca, N. Y., October, 1893.—The four-lined leaf-bug (*Pœcilocapsus lineatus*), M. V. Slingerland. Pp. 207–239. 13 figs.

THE ANNALS AND MAGAZINE OF NATURAL HISTORY. London, November, 1893.—Two new Coccidæ from New Mexico, T. D. A. Cockerell, figs.

RECORDS OF THE AUSTRALIAN MUSEUM, II, 5. Sydney, September, 1893.—Description of a new flea (*Stephanocircus dasyuri*), from New South Wales; with notes of some other insect parasites known in Australia, F. A. A. Skuse, 1 pl.

BULLETIN OF THE UNITED STATES NATIONAL MUSEUM No. 46.—The Myriapoda of North America, by Charles Harvey Bollman. Edited by L. M. Underwood. Containing the collected writings on North American Myriapoda, both published and unpublished, of the late C. H. Bollman. Washington, 1893. 210 pp.

THE BUTTERFLIES OF NORTH AMERICA, with colored drawings and descriptions, by W. H. Edwards. Third series, part xiv. Boston and New York. Houghton, Mifflin & Co., 1893. Contains *Neominois ridingsii, Chionobas æno, assimilis, crambis, macounii.*

COMPTE RENDU. SOCIETE PHILOMATHIQUE DE PARIS. Oct. 28, 1893.—New note on an entomophagous insect [*Doria meditabunda*], parasitic in the European silk-worm, E. L. Bouvier and G. Delacroix.

ZOE. San Francisco, October 1893.—The species of *Amblychila*, J. J. Rivers, 2 pls. A mesquite Tineid which constructs a bag-like case from the leaves, C. H. T. Townsend. *Leucarctia rickseckeri*, Dr. H. H. Behr.

NATURE. London, Nov. 16, 1893.—Further notes and observations upon the instincts of some common English spiders, R. I. Pocock. The stigmata of the Arachnida as a clue to their ancestry, H. M. Bernard, 1 fig.—November 30. Protective habit in a spider [*Epeira*], C. L. Morgan.

LE NATURALISTE. Paris, Nov. 15, 1893.—New remarks on the habits of Coleoptera destructive to forests, M. Decaux.

THE AMERICAN NATURALIST. Philadelphia, November, 1893.—Animal intelligence, J. Weir. The androchonia of Lepidoptera, M. B. Thomas, 1 pl. Fleshy cecidomyid twig-gall on *Atriplex canescens*, C. H. T. Townsend. *Trichodactylus xylocopæ* in California, H. Osborn.

COMPTE RENDU. SOCIETE DE BIOLOGIE. Paris, Nov. 18, 1893.—On the reproduction of the Sarcoptidæ, Dr. E. Trouessart.

PSYCHE. Cambridge, December, 1893.—The primitive number of Malpighian vessels in insects (concluded), vii, W. M. Wheeler, figs. Descriptions of new species and genera of West African Lepidoptera, W. J. Holland, figs. The Dolichopodid genus *Liancalus* Loew, J. M. Aldrich. Two new forms of Diaspinæ, T. D. A. Cockerell. A note on the larva of *Datana floridana* Graef., H. G. Dyar.

INSECT LIFE, vi, 1, Washington, D. C., November, 1893.—An important predatory insect (*Erastria scitula* Ramb.), Eds., figs. Notes on Tasmanian Coccinellidæ, E. H. Thompson. Experiments with the hop-louse in Oregon and Washington, A. Koebele. Report on outbreaks of the Western cricket and of certain locusts in Idaho, R. Milliken. The present status of the recent Australian importations, D. W. Coquillett and A. Koebele. On the injurious and other locusts of New Mexico and Arizona, C. H. T. Townsend. The usual extracts from correspondence and general notes.

THE ENTOMOLOGIST'S RECORD. London, Nov. 15, 1893.—On the larva of *Arctia caia*, with special reference to its correlated variations in plumage, moulting and hybernation, Dr. T. A. Chapman.

ZOOLOGISCHER ANZEIGER, Leipsic, Nov. 27, 1893.—On the bite of Pseudoscorpions, C. Berg.

THE ENTOMOLOGIST. London, Dec., 1893.—The coloring of *Chrysophanus phlæas* as affected by temperature, F. Merrifield. Observations on *Vanessa c-album*, W. H. Bath. A catalogue of the Lepidoptera of Ireland (cont.), W. F. deVismes Kane. Three new Coccidæ from the arid region of N. America, T. D. A. Cockerell. Notes on the synonomy of Noctuid moths, A. G. Butler, Ph.D. *Vanessa atalanta* in Florida, J. Arkle.

PROCEEDINGS OF THE ZOOLOGICAL SOCIETY OF LONDON, 1893, part II, Aug. 1, 1893.—Descriptions of new species of Lepidoptera Heterocera from Central and South America, H. Druce, 3 pls.—Pt. iii, Oct. 2, 1893. A monograph of the butterflies of the genus *Thysonotis*, H. H. Druce and G. T. Bethune-Baker, 3 pls.

BULLETIN 44 OF THE U. S. NATIONAL MUSEUM.—Catalogue of the Lepidopterous Superfamily Noctuidæ, found in Boreal America. By John B. Smith, Sc. D.—This great work of 424 pages marks an era in the

study of American moths. From this time on it will be possible for anyone who has access to a fair entomological library, with the aid of this work to intelligently study our Noctuidæ. The references to all the species are given, and also the original generic references, as well as the synonymy, etc., of all the species. The habitat, time of appearance, and location of the types are all given, as well as any other notes considered of importance. A most valuable index is given, which adds very materially to the value of the work, inasmuch as every name used in the body of the work is referred to. This will be invaluable to many collectors and students who have their species under old or improper generic names, and who do not know where to place them in our later lists. The advent of such a work is of vast importance, as it makes it possible for the general student to work in what was heretofore a special field only open to a few most painstaking workers who worked out the literature for themselves. Prof. Smith is to be congratulated on this work, and also to a greater extent the entomologists of America, who will be benefitted by it.

We have received Bulletin of the United States National Museum, No. 45, devoted exclusively to Mr. William H. Ashmead's monograph of the North American Proctotrypidæ, the receipt of which we take pleasure in acknowledging. The work is quite voluminous, there being 454 pages of text and 18 excellent plates executed by the author. Mr. Ashmead considers that the Proctotrypidæ "have but little affinity to the Chalcididæ," and should be placed at the head of the Terebrantia, as he believes them to be closely related to the Aculeata, and further asserts that after the removal of the group Myrmarinæ, which he regards as a distinct family, they have no relation to the Chalcididæ. The external structural characters are described at length, and plate I is entirely devoted to the illustration of them. The habits, dimorphism and parthenogenisis, life-history and distribution are dwelt on. He asserts that there is scarcely any doubt, but that many of the wingless species to be found in the various genera are only dimorphic forms of winged species, but as little positive is known on the subject, they must be described as distinct species, as any other course would be but guesswork, and, consequently, unscientific. Such forms must be bred from generation to generation before anything positive can be learned regarding them. The arrangement proposed by Halliday, in 1839, he discards as unnatural, as the scheme widely separates some closely-allied groups. The classification of Förster being regarded by him as the most satisfactory, he has made it the basis of his own work. After reviewing the works of numerous authors his own classification is announced, in which he recognizes ten subfamilies, all of which were regarded as families by Förster. After tabulating the subfamilies, and the genera likewise, the species are so treated. Many new species are brought to light, as is well illustrated in the genus *Megaspilus*, in which the species are trebled, and still better in *Polygnotus*, in which genus the number of species is increased from three to thirty-three. The work is completed by a "tabular view" of the bred North American

Proctotrypidæ, which gives a list of their hosts, and a catalogue of the literature on the subject, and explanations of the abbreviations used. We cannot consider this work otherwise than a most valuable contribution to the literature of the micro-Hymenoptera, and while we are not versed sufficiently with the parasitic Hymenoptera to offer any criticisms on the work, we feel sure that very few, if any, unfavorable comments can be made thereon, and beg to congratulate the author for the masterly way he has handled the subject.—W. J. F.

NEW SPECIES OF NORTH AMERICAN INSECTS DESCRIBED IN THE PRECEDING LITERATURE.

HEMIPTERA.

Orthezia Annæ Cockerell, Ann. Mag. N. H. (6) xii, p. 403, N. Mex. *Bergrothia townsendi*, p. 404, N. Mex.

Aspidiotus uvæ Comst. var. *coloratus* Cockerell, Psyche vi, p. 571, N. Mex. *Mytilaspis albus* Ckll. var. *concolor*, p. 572, N. Mex.

Fairmairia (*Ceroplastodes*) *nivea* Cockerell, Ent. xxvi, p. 350, Mex. *Ceroplastes irregularis*, p. 351; id. *Pseudococcus helianthi*, p. 352, N. Mex.

MYRIAPODA.

N. spp. Bollman, Bull. U. S. N. M. No. 46.

LEPIDOPTERA.

*Leucarctia ricksecker*i Behr., Zoe iv, p. 247, Calif..

Tagora corax Druce, Proc. Zool. Soc. Lond. 1893, p. 299, Mex.

DIPTERA.

Cecidomyia atriplicis Townsend, Am. Nat. xxvii, p. 1021, N. Mex.

Liancalus hydrophilus Aldrich, Psyche vi, p. 569, S. Dak. *L. similis*, p. 571, Wash.

The Entomological Section

ACADEMY OF NATURAL SCIENCES, PHILADELPHIA.

PROCEEDINGS OF MEETINGS.

DECEMBER 11, 1893.

A regular stated meeting of the Entomological Section of the Academy of Natural Sciences was held in the Hall, S. W. cor. Nineteenth and Race Streets, this evening, Dr. G. H. Horn, Director, presiding. Members present: E. T. Cresson, G. B. Cresson, Calvert, Liebeck, Johnson, Skinner, Ridings, Laurent and Welles. Associates: Fox, Nell, Haimbach, Drs.

Griffith and Castle. This being the business meeting of the year, the reports of the different officers were read and the following named gentlemen were elected to serve for the coming year:

Director, G. H. HORN, M.D.
Vice-Director, C. S. WELLES.
Recorder, H. SKINNER, M.D.
Treasurer, E. T. CRESSON.
Conservator, H. SKINNER, M.D.
Publication Committee, { J. H. RIDINGS, C. W. JOHNSON.

The following papers were read and accepted by the Committee for publication in ENTOMOLOGICAL NEWS:

A NEW HEPIALUS FROM CALIFORNIA.

By HARRISON G. DYAR.

Hepialus lembertii n. sp.—Light fawn color, of the tint usual in this genus; secondaries blackish, with a small, pale spot at apex. Below both wings blackish, the fringe pale. On the fore wings are a series of dusky whitish, subquadrate, intervenular spots, each neatly surrounded by a smoky black border. The spots are arranged in six irregular, catenulate, transverse bands, as follows:—(1) Two rather large spots at base of cell and vein 1 (ix) respectively; (2) two or three small ones below median vein (cubitus); (3) a transverse, complete row before middle of wing of about five spots, nearly straight; (4) a row of small ones from end of cell to costa, becoming furcate before reaching costa; (5) a complete row of about eight spots in the transverse-posterior position, dislocated at vein 4 (v3); (6) a terminal row, leaving the margin for a short space near the terminations of veins 7 to 9 (iii5 to iii3). Veins indicated in smoky black. Expanse 31–33 mm.

Described from two examples captured in the high Sierras of California by Mr. John B. Lembert.

Mr. Lembert writes that the moths were taken on September 1st flying about dusk within a short distance of the ground. He took them in the highland meadow near the banks of the Lyell fork of the Tuolumne River.

The species is different from any known to me either autoptically or by description. I am unacquainted with the *Hepialus californicus* of Boisduval; but his short description cannot be made to apply to this form. Boisduval says of *californicus*: "Elle a le port et la taille de la *carnus* des Alps. Ses ailes supérieures d'un grisatre obscure offrent a un certain jour, vers l'extrémité, des raies blanchatres parallales renfermant des petites taches arrondies d'une couleur plus obscure. Les ailes inférieures sout d'un gris noiratre."

AFRICAN HESPERIIDÆ.

By W. J. HOLLAND, Ph.D., Pittsburg, Pa.

Subfamily HESPERIINÆ.

SARANGESA Moore.

1. **S. exprompta** sp. nov. ♂.—Allied to *S. perpaupera* Holl., and also to *S. melania* Mab., according to the tenor of the description of the latter species. The antennæ and the entire upperside of the body are blackish brown; the lowerside of the body is paler brown. The primaries dark gray, clouded below the apex by a broad irregular transverse black shade, which is continued parallel to the outer margin to the outer angle. There is also a black shade at the apex, and a small black circular spot below the cell near the origin of the first median nervule. There are eight vitreous spots upon the wing, disposed as follows: Three minute spots forming a short subapical band just below the costa, one-third of the distance from the apex; a small circular spot on the costa above the end of the cell; an elongated spot closing the cell, with its inner margin straight and its outer margin excavated; three spots on the median intervals forming a short series parallel to the outer margin. Of these three last-mentioned spots, the one in the middle is the largest, and is subtriangular; the lower one is quite minute, andthe upper one subquadrate. The oblong spot at the end of the cell is shaded posteriorly by a blackish shade. The fringes are concolorous, slightly checkered with paler fuscous on the intervals, and distinctly marked with whitish at the apex and just above the outer angle. The secondaries are of the same color as the primaries, clouded along the outer margin with blackish, and traversed about the middle and just beyond it by two interrupted parallel series of blackish circular spots. The fringes are concolorous, slightly checkered with paler fuscous on their edges at the interspaces. Upon the underside the ground color is a trifle paler than upon the upperside. All the spots and markings of the upper surface are reproduced upon this side. Expanse 26 mm.

Hab.—Accra, West Africa.

This insect belongs to the subgeneric group, for which Mons. P. Mabille has proposed the name *Eretis*. The structural differences are scarcely sufficient to warrant a separation from the genus *Sarangesa* Moore, to which a large number of African species must be assigned.

2. **S. subalbida** sp. nov. ♂.—The antennæ are black. The upperside of the body is black; the lowerside of the palpi and the pectus are ochraceous; the legs whitish, as also the lowerside of the thorax and abdomen. The upperside of both wings are gray, the primaries clouded with blackish at the outer angle, and the secondaries heavily clouded in like manner at the outer angle. There are seven very minute, whitish vitreous spots upon the primaries. Four of these spots form a subquadrate

group before the apex near the costal margin, the other three are disposed as a limbal series on the median interspaces beyond the middle of the wing. They are all surrounded narrowly by darker cloudings, deep brown or blackish. Upon the underside the primaries are as on the upperside, but paler, with the inner margin laved with whitish; the secondaries are bluish white, with the base covered with bluish gray scales. The outer angle is heavily marked with black, and there is a small circular black spot near the costa beyond the middle of the wing. Expanse 32 mm.

Hab.—Kangwé, Valley of the Ogové.

CELÆNORHINUS Hüb.

3. **C. macrostictus** sp. nov. ♂.—Closely allied to *C. elmina* Ploetz (=*C. proxima* Mab.), from which it differs in no respect, except that the entire middle area of the wing is occupied by a large white spot, which replaces the four or five spots which compose a median band of markings in the species described by Ploetz, and that the fringes of the secondaries are not white, checkered with black, as in *C. elmina*, but are uniformly brown, like the body of the wing. Expanse 41 mm.

Hab.—Valley of the Ogové.

ÆGRIS Guen.

4. **E. fuscosa** sp. nov. ♀.—Antennæ black; head and upperside of the palpi brown, lower side of palpi white; upperside of thorax and abdomen fuscous-brown, lowerside of thorax grayish; lowerside of abdomen pure white; legs grayish. The primaries on the upperside are fulvescent brown, with the outer borders marked with blackish. There is a double black spot beyond the base near the inner margin. The wing is traversed by a median band of seven elongated translucent spots: one near the costa: two below it, at the end of the cell (the lower one of which is the largest): a small one between the second and third median nervules; a larger one, subtriangular in form, between the first and second median nervules; two smaller ones between the first median nervule and the submedian nerve. All of these spots are margined externally with blackish. There is a subapical series of six small spots arranged in a curved line, the second from the the top being advanced sharply beyond the others. The secondaries have the same ground-color as the primaries, and have a large black spot at the end of the cell, followed by a regularly curved series of eight black spots, two of them on the costa; the fourth and fifth, reckoning from the costa, tending to coalesce. The outer angle is broadly marked with blackish. The primaries on the upperside are pale fuscous, the translucent spots of the upperside reappearing. The secondaries are pure white, with the base laved with bluish; the costa and outer angle broadly marked with dark brown. The fringes are brown; a brownish shade runs inwardly near the first median nervule. There are two small black spots at the end of the cell, and a subcostal curved series of five black spots, the

second of which, reckoning from the base, is the largest; and the fourth and fifth tend to coalesce. Expanse 40 mm.

Hab.—Valley of the Ogové.

This species seems to be closely allied to *E. phyllophila* Trim., from which it differs, however, in the form of the spots upon the primaries, and in the absence of the submarginal spots upon the lowerside of the secondaries in the region of the median nervules.

ACLEROS Mab.

5. **A. substrigata** sp. nov. ♂.—The antennæ, the upperside of the palpi, the head, the thorax and the abdomen, black; the tip of the abdomen and the lowerside of the palpi, the thorax and the abdomen, whitish; the legs are gray, margined with whitish. The upperside of both primaries and secondaries is black; the fringes of the primaries on the upperside are black; the fringes of the secondaries are white, more broadly so at the anal angle. On the underside the primaries are fuscous, broadly marked with white upon the inner margin. There are two very small and obscure whitish spots at the end of the cell, one above each other, and faint traces of a curved limbal series of similar spots, in which the two uppermost members of the series are the most conspicuous, and in some specimens are well defined. The secondaries are gray, slightly darker on the costa and traversed by subbasal, median, and submarginal series of spots, lighter than the ground-color of the wings, and margined externally by fine dark lines.

♀.—The female is like the male, save that the primaries are marked by two diffuse white spots, one above the submedian nerve about its mid dle, and another just above it, between the first and second median nervules at their origin. Expanse ♂ and ♀ 25—28 mm.

Hab.—Valley of the Ogové.

On the upperside this insect looks like *A. mackenii* Trim., but is smaller. A glance at the underside, which is totally unlike that of any other species in the genus, reveals at once its specific distinctness.

GASTROCHÆTA Mab.

6. **G. mabillei** sp. nov. ♂.—Antennæ black; upperside of the head, thorax and abdomen, dark brown; lowerside of the palpi whitish; lower side of thorax brown; lower side of abdomen yellowish, the yellow color produced upwardly on the sides along the outer margin of the segment. Primaries on the upperside black. There are two small white translucent spots, one above the other, at the end of the cell; there are three minute spots, forming a curved subapical series; there are three subquadrate spots, forming a transverse median series, the middle spot being the largest, and located just below the two small spots at the end of the cell. the lower spot is semi-opaque. The secondaries have a large circular

translucent spot at the end of the cell, and beyond it two narrow elongated white spots separated by the second median nervule. On the underside the primaries are marked as on the upperside, but the ground color is obscure fuscous, shading into blackish on the cell. The secondaries are yellowish, with the outer margin broadly brown. There is a translucent spot at the end of the cell, very narrowly edged with brown; there are two blackish rays running from this spot to the base. The costa is narrowly marked with brown, and there is a curved series of four small brown spots, two below the costa, the third opposite the end of the cell, geminate; and the fourth, just below the two translucent linear spots, which reappear upon the lowerside; and are especially noticeable when the wing is held up to the light.

♀.—The female does not materially differ from the male, except in having a stouter body. Expanse ♂ and ♀ 35 mm.

Hab.—Valley of the Ogové.

I name this well-marked and distinct species in honor of Mons. P. Mabille, of Paris, the veteran hesperidologist, to whom I submitted the species, and who declared it to be unknown to him.

GANGARA Moore.

7. **G.** (?) **basistriga** sp. nov. ♀.—Antennæ dark brown, narrowly margined with yellow on the underside of the culmen, and broadly marked with yellow on the underside of the club. The upperside of the palpi and the entire body are dark brown; the lowerside of the palpi is yellowish; legs brown. The primaries on the upperside are dark brown. There is a long subquadrate spot filling the outer half of the cell; a subapical series of three yellow spots, of which the outermost one is the largest. There are three yellow spots forming a transverse limbal series, of which the one located between the first and second median nervules is very large, and is separated from the large spot in the cell by the median nervule; the other two spots are subtriangular, one located between the second and third median nervules, and the other being located upon the submedian nerve, a little beyond its middle. The fringe is dark brown, except at the outer angle, where it is yellowish. The secondaries are dark brown, with the base and inner margin covered with olivaceous hairs. There is a yellowish ray at the end of the cell, followed by a transverse median series of three yellow opaque markings, which cross the wing at right angles to the inner margin; the two innermost spots, which are located between the median nervules, are circular; the outermost, which is elongated and linear, is situated between the third median and the first subcostal. The fringes are narrowly yellowish, shaded with brown at the ends of the nervules, except near the anal angle, where the fringe is uniformly bright yellow. On the underside the primaries are dark maroon, marked with pale cinereous near the apex, and laved with pale yellowish along the inner margin. The spots of the upper surface reappear on the lowerside, and, in addition, there is a small geminate

costal spot about the middle of the costa. There is a narrow ray of cinereous on the costa at the base; the cinereous apical tract is marked by a band of darker submarginal cloudings, and the margin at the apex is accentuated by a series of dark brown spots, shading about the middle into the dark ground-color of the wing. The third spot of the median series, which is very conspicuous on the upperside, scarcely appears on the lowerside, but is lost in the prevalent yellow shade of the inner margin. The secondaries are dark brown, laved with purplish-ashen arranged in transverse bands. At the base, running diagonally from the costa to the submedian nerve, there is a narrow, pale cinereous streak; the outer margin is dark brown. The fringe at the anal angle is bright yellow. Expanse 68 mm.

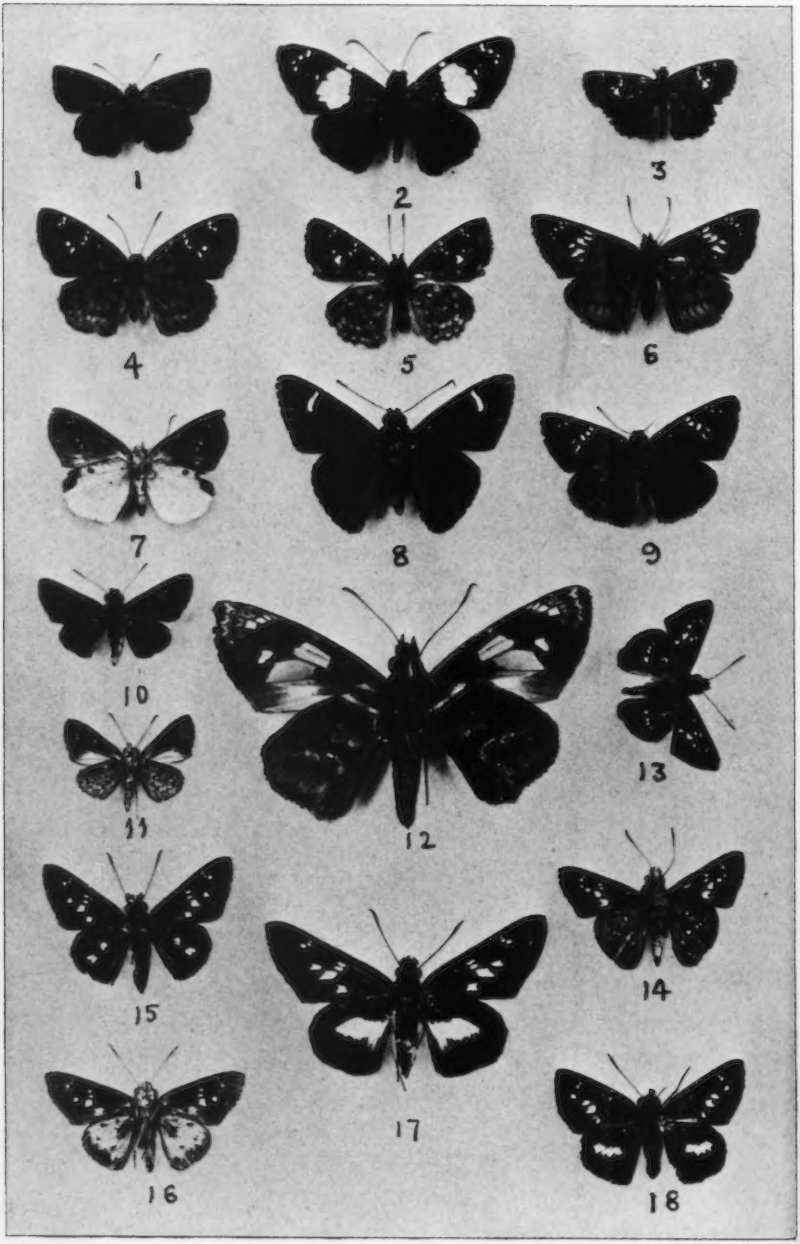
Hab.—Valley of the Ogové.

This fine species, which is one of the largest of the African Hesperiidæ, is represented in my collection by a single female. It strongly suggests, in some respects, the well-known *Gangara thyrsis* of India; but I suspect that an accurate examination of the neuration, which I am reluctant at present to make, will reveal that it is generically distinct.

PARNARA.

8. **P. unistriga** sp. nov. ♂.—The antennæ are black, paler on the lowerside, with the lowerside of the club bright yellow; the upperside of the palpi, the head, and the body is dark brown; the lowerside of the palpi is whitish, of the thorax gray, and of the abdomen pure white. The legs are gray, like the thorax. The primaries on the upperside are blackish brown, with greenish hairs at the base. There are two narrow, elongated spots at the end of the cell, one above the other. There are two minute subapical dots and a transverse median series of four spots, of which the uppermost is very minute; the next larger subquadrate; the third the largest of all, trapezodial; and the fourth, which is located on the submedian vein near its middle, is lunate. The fringes are slightly paler than the body of the wing. The secondaries, upon the upperside, are of the same color as the primaries, with the fringes at the anal angle, and the inner margin quite pale. They are traversed by a transverse median band of four or five white opaque spots, which gradually widen from the first subcostal to the first median nervule, where the series terminates. On the underside the primaries are fuscous, slightly darker in the region of the cell. The spots of the upperside reappear on this side, and are much larger, though less dstinctly defined. The secondaries are fuscous, slightly tinged with rufous, and externally bordered with a darker shade; there is a circular whitish spot at the end of the cell. The transverse median series of spots reappears upon the lowerside, but more distinctly defined, and a narrow whitish ray runs from the innermost of these spots to the outer margin. The female is unknown to me. Expanse 30 mm.

Hab.—Valley of the Ogové.



AFRICAN HESPERIIDÆ Holland (Reduced one-fifth).

See page 26.

In the plate figs. 13 and 14 show white spots near the costa of the primaries, beyond the base, and in fig. 13 there are white spots near the costa at the base of the secondaries: these are pin-holes in the wings of the specimen, and must not be taken into account when studying the figure. I did not have an opportunity to retouch the plate and stop them out.

9. **P. melphis** sp. nov. ♂—Antennæ black, paler beneath. The palpi are brown, edged below with the yellowish. The thorax and abdomen are dark brown, sparingly clothed with greenish hairs. The upperside of the primaries is black, clothed with greenish hairs at the base. There are two small subapical spots, and a transverse limbal series of five translucent spots, the first exceedingly minute; the second subquadrate; the third and fourth, which are also subquadrate, are the largest in the series, and are closer to each other than the other spots; the lowermost spot of the series, which rests upon the middle of the submedian vein, is small and nearly oval. The secondaries on the upperside are black, with a light vestiture of greenish hairs at the base and on the inner margin. The fringes are narrow and whitish. This wing is crossed about the middle, beyond the cell, by an irregularly curved band of translucent spots, extending from the first subcostal to the internal vein. Both wings, on the underside, are brownish ferruginous. The spots of the upperside reappear. The small oval spot, which forms the last member of the transverse limbal series of the upperside, is represented upon the lowerside by a large, brilliantly-white lunate spot, which is opaque, except on its inner margin, where it coincides with the oval mark of the upper surface. The median band of spots on the secondaries is reinforced by a small brilliantly-white opaque spot at its outer extremity above the first subcostal nervule, and the inner spot contiguous to the internal vein is larger than upon the upperside, brilliantly white and opaque, except where it coincides with the small translucent spot of the upperside of the wing. Expanse 35 mm.

Hab.—Valley of the Ogové.

This species in some respects resembles *P. statira* Mab., according to the published description; but Mons. Mabille, who has seen the type, declares it to be a species unknown to him and quite distinct from his *P. statira*.

EXPLANATION OF PLATE I.

Fig. 1. *Sarangesa perpaupera* Holl., Ann. and Mag. N. H. (6), x, p. 288.
" 2. *Celænorhinus macrostictus* Holl., sp. nov.
" 3. *Sarangesa exprompta* Holl., sp. nov.
" 4. " *motozioides* Holl., Ann. and Mag. N. H. (6), x, p. 288.
" 5. " " (female).
" 6. *Eagris fuscosa* Holl., sp. nov.
" 7. *Sarangesa subalbida* Holl., sp. nov. (underside).
" 8. *Katreus johnstonii* Butl., P. Z. S., 1887, p. 573.
" 9. *Eagris dekastigma* Mab., C. R. Soc. Ent. Belg., 1891, p. lxii.
" 10. *Acleros substrigata* Holl., sp. nov.
" 11. " " (underside).
" 12. *Gangara* (?) *basistriga* Holl., sp. nov. (underside).
" 13. *Parnara unistriga* Holl., sp. nov.
" 14. " " (underside).
" 15. *Gastrochæta mabillei* Holl., sp. nov.
" 16. " " (underside).
" 17. *Carystus* (?) *thersander* Mab., Ann. Soc. Ent. Fr. (6), x, p. 30.
" 18. *Parnara melphis* Holl., sp. nov.

OBITUARY.

Mr. WILHELM JULICH died Nov. 8, 1893, in New York City, aged 54 years, of cerebro-spinal meningitis. Mr. Jülich's death was as unexpected by his own family as it was by his many friends, to whom the news of his sudden demise came as a great shock. He was a man of robust health, and while not feeling his best for some days, believed that his energy and will power would carry him through, as it had done before under more trying circumstances. On Tuesday, November 7th, he declared his intention of going out to vote, and it was only the timely arrival of his physican that prevented him from doing so. Wednesday evening he became unconscious, and passed away peacefully about midnight. Mr. Jülich was born at Rhine-Pfaltz, Germany, and came to this country at the age of fifteen, residing continuously from that time in New York City. He was appreciated for his good qualities by a large number of entomologists who are not limited to New York, he being an honorary member both of the Brooklyn Institute and of the Newark Ento. Society, as well as of the New York Ento. Society. His labors in Entomology had been chiefly in Lepidoptera up to some fifteen years ago, at which time he began to devote his attention more exclusively to Coleoptera, of which he had a collection, beautifully mounted and arranged, of over 10,000 specimens. He contributed a number of valuable and interesting articles on his favorite study to the various entomological journals, principally to "Entomologica Americana." He was a member of the 1st Regiment N. Y. Volunteers, and served two years in defence of his adopted country, was severely wounded at Chantilly, and lay several months in the hospital at Washington. On one occasion his entomological pursuits came near costing him his life. He was captured while trying to return inside the Union lines without the countersign, and arrested as a spy. When he appeared before the court-martial, his story that he had been catching insects was not appreciated until he produced his bottles and displayed the "Käfers," etc., they contained. His old commander, General Sigel, made a short and impressive address over his remains, in which he voiced the general regret that would be felt by the many friends who loved and honored him, and by whom his memory would be long cherished. He was buried November 10th in the Lutheran Cemetery, Brooklyn, L. I., with appropriate military honors.

C. FREIHERR VON GUMPPENBERG, lepidopterist and postmaster at Bamberg, Germany.

ENTOMOLOGICAL NEWS for December, 1893, was mailed Dec. 7, 1893.